

**HUNTERS POINT NAVAL SHIPYARD
BASE REALIGNMENT AND CLOSURE CLEANUP TEAM
MEETING NOTES
March 27, 2014**

These notes summarize the meeting of the Navy Base Realignment and Closure (BRAC) Cleanup Team (BCT) for Hunters Point Naval Shipyard (HPNS). The meeting was held at 10:00 a.m. on March 27, 2014 at Tetra Tech Inc.'s HPNS site trailer in San Francisco, California.

I. Introductions, Meeting Guidelines, Agenda Review, and Meeting Minutes

Melanie Kito (Navy) began with introductions; participants are listed on the last page of these notes. The action items from February were completed.

II. IR-03 Pilot Study Update (Danielle Janda, Navy)

- The Navy gave an update on the in-situ thermal remediation (ISTR) treatment system and noted they are still heating the treated water prior to reinjection.
- The system has been effective at pulling out both dense non-aqueous phase liquid (DNAPL) and light non-aqueous phase liquid (LNAPL).
- The Navy replaced a 1,000-gallon NAPL separator with a 10,000-gallon NAPL separator because the large volumes of NAPL required longer retention for phase separation.
- Each extraction well is pumping at an average rate of 0.4 gallons per minute and pneumatic control is being maintained at the site.
- As of March 19, 2014, 1,200 gallons of NAPL have been extracted and no DNAPL has been extracted since the last reporting period. Operations are continuing with temperatures slowly ramping up to boiling.
- Criteria for shutdown of the system include cessation of NAPL recovery and a minimum of three pore volumes recirculated with no NAPL recovery.

III. Radiological Program Update (Melanie Kito, Navy)

- Parcel C Phase II project has removed 100 percent of the sanitary and storm drain lines and has excavated 29 Trench Units to date.
- In Parcel C, surveys are complete for soil Survey Units 2, 3, 5, 6, 7, 8, and 9 and characterization sampling and remediation are ongoing at Survey Units 1 and 4. Surveys for Concrete Survey Units 10-13 are also complete.
- At Building 253, all of the ventilation system is removed and surveyed. At Building 211, 100 percent of the wooden extension is surveyed and screened. At both buildings, floors are still being surveyed.

- In Parcel E, approximately 6,600 linear feet of sanitary and storm sewer lines have been removed.
- The Navy is awaiting a California Department of Public Health unrestricted radiological release letter for the Gun Mole Pier.

IV. Parcel B Soil Vapor Extraction Operation at IR-10 (Lara Urizar, Navy)

- The soil vapor extraction (SVE) system has been operating continuously in the east-west quadrants on Parcel B from August 2013 to January 2014.
- Influent concentrations from the east-west quadrants dropped below the soil gas action levels and treatment efficiency became asymptotic. The SVE system was then reconfigured to a north-south and a portion of the west quadrant configuration in January 2014.
- The system has removed approximately 13 pounds of total volatile organic compounds (VOCs).
- The system will be switched back to the east-west quadrant configuration in April 2014.
- The system will run until July 2014 when it will be shut off to allow concentrations to rebound in the subsurface. Routine operations will resume in December 2014 if rebound occurs. If there is no rebound then the Navy could elect with BCT concurrence to shut the system down.
- The Navy noted that the regulatory agencies will be notified before the system is shut down.

V. Parcel E-2 Seep and Hot Spot Update (Lara Urizar, Navy)

- The Navy conducted biological surveys on Parcel E-2 in 2004 and in February and March 2014. No sensitive wildlife or vegetative species were identified during the surveys. A field biologist will be onsite during upcoming intrusive work on the parcel.
- The reactive core mats previously installed in 2013 started to slump following heavy storms in February/March 2014. The Navy waited until biological surveys were completed and then mobilized to rehabilitate the mats.
- The Navy collected pre-excavation characterization samples during rehabilitation of the reactive core mats. The Navy then re-covered the area with a new larger reactive core mat that was covered with 12 inches of clean imported sand and staked into the ground.
- The Navy will rehabilitate the radiological screening yards in April 2014 and drilling and sampling is scheduled to begin March 31, 2014. The Navy will also install a turbidity curtain in the San Francisco Bay in August 2014. Hot spot excavations will not begin until fall of 2015.

- The Navy will submit a Draft Characterization Technical Memorandum in July 2014 with a Draft Hot Spot Remedial Action Completion Report (RACR) in June 2014.

VI. Parcel C (RU-C1, RU-C4, and RU-C5) Groundwater Remedial Action Update (Tony Konzen, Navy)

- The remedial action excavations were completed in February 2014 and all compaction and site restoration will be complete by April 2014.
- A portion of the plume C4-1 injections were completed in March 2014 including 14 shallow and 6 deep lactate and SDC-9 injections, and 5 shallow and 6 deep zero valent iron (ZVI) injections.
- Shallow injections are still needed at plumes C1-1, C1-2, C1-4, C4-1, and C5-1. Deep injections are still needed at plume C5-2.
- The Navy is recommending further characterization (and possible bio-remediation and SVE) of SVE Areas 4 and 5 because of remaining soil gas and groundwater concentrations above cleanup goals. These areas were not originally included in the scope as it was assumed former treatability studies had addressed all contamination in the area.
- The Navy will complete the bioremediation and ZVI injections by May 2014.
- The SVE system installations were completed for SVE areas 1, 3, 6, and 7. The SVE area 8 system is being constructed and then will undergo startup/shakedown testing.
- The Navy will complete a final survey of all excavations and injection areas for preparation of as-builts.
- Post-injection groundwater sampling will begin in late March 2014 and continue through March 2015.

VII. IR-26 Mass Flux Evaluation (Tony Konzen, Navy)

- The Navy presented the limits of historical excavations at IR-26 and mercury concentrations in groundwater at the site.
- There are two monitoring wells (IR26MW49A and IR26MW51A) at IR-26 that exhibit historical concentrations of mercury above the trigger level, along with one additional sample from a nearby monitoring well (PA50MW02A) that was collected in July 2013.
- In November 2013, a scoping meeting between Navy and BCT was held. During the meeting it was agreed that the goals of the planned field investigation would include adequately characterizing the dissolved mercury concentrations, determining if mercury is migrating to the San Francisco Bay (Bay), and performing a mass flux evaluation to determine if remedial goals are being met.

- The proposed path forward for meeting the goals includes additional groundwater characterization, additional hydropunch borings to collect groundwater samples at 10 feet below ground surface and at the bedrock interface, and installing additional groundwater monitoring wells. In addition, the Navy will perform a tidal fluctuation study and perform slug tests to collect data on hydraulic conductivity in the area.
- The mass flux evaluation will be conducted using guidance from the Interstate Technology & Regulatory Council and other industry standards.
- The Navy is beginning contractual procurement of this work in April 2014 with a draft work plan to be submitted in July 2014.

VIII. Parcel C Explanation of Significant Differences (ESD) (Tony Konzen, Navy)

- Based on regulatory guidance, all changes to a record of decision (ROD) are either characterized as non-significant, significant, or fundamental based on the nature of the change with respect to scope, performance, and/or cost.
- At Parcel C, the soil excavations were re-evaluated using a tiered action level approach. This approach has resulted in a significant change to the ROD due to a change in scope and cost and requires development of an ESD to document the change.
- The ESD will apply to excavations 22-2, 23-1, 24-3, 24-5, and 11-2. Non-significant changes were made to excavations 10-3, 10-4, 11-1, 18-2, 18-4, 24-2, 24-4, and 26-2.
- The draft ESD will be sent to the regulatory agencies on April 4, 2014 for review.

IX. Community Involvement Update (Melanie Kito, Navy)

- The Navy will distribute the draft Community Involvement Plan (CIP) to the BCT in April. The document will also be sent to the libraries and posted to the Navy's website.
- Other items which will be finalized in April 2014 include the 2014 Annual Update, the Quarterly Progress Update and second part of the Parcel E-2 Factsheets.
- The next community meeting will be on April 26, 2014 at the Bayview YMCA and will discuss Parcel E-2.

X. Action Items/Future Meetings (Melanie Kito, Navy)

New Action Items:

- Craig Cooper (USEPA) will look into the Operating Properly and Successfully (OPS) determination for Parcel B and when/if the Navy should engage in the process.

Next meetings:

- April 24, 2014 BCT meeting at CH2M HILL's office, Oakland, California

Meeting participants:

Jeff Austin, Geosyntec	Melanie Kito, Navy
Karla Brasaemle, TechLaw*	Anthony Konzen, Navy*
Amy Brownell, City of SF	Tina Low, Water Board
Craig Cooper, USEPA	Leslie Lundgren, CH2M HILL
Bill Dougherty, Tetra Tech ECI	Ryan Miya, DTSC
Jamie Egan, CH2M HILL	Tim Mower, Tetra Tech ECI*
Catherine Haran, Navy	Reginald Paulding, Navy*
Mahbub Hussain, Navy*	Christina Rain, Treadwell and Rollo/Langan
Danielle Janda, Navy*	John Sourial, ERRG
Eric Johansen, CE2-Kleinfelder*	Lara Urizar, Navy*
Tracy Jue, CDPH	Brett Womack, Gilbane
Tim Kemper, CBNI	Saul Bloom Arc Ecology

* Indicates attendee participated via telephone